

Claims

- [c1] A vehicular mirror system, comprising:
- a base adapted to be mounted to the vehicle, the base comprising a cradle extending outwardly therefrom;
 - a reflective element assembly for providing a rearward reflective view to an operator of the motor vehicle;
 - a support tube assembly attached to the reflective element assembly and supported in the cradle;
 - a motorized powerfold assembly mounted to at least one of the base and the reflective element assembly for selectively pivoting the support tube assembly alongside the vehicle or laterally outwardly from the vehicle; and
 - a motorized powerextend assembly mounted to at least one of the base and the reflective element assembly for selectively extending the reflective element assembly laterally outwardly from the vehicle or inwardly toward the vehicle;
- wherein the support of the support tube assembly by the cradle has increased strength and resistance to vibration while enabling the support tube assembly to pivot relative to the base.
- [c2] A vehicular mirror system according to claim 1, and further comprising a clamp member attached to the cradle to form a channelway for receiving the support tube assembly.
- [c3] A vehicular mirror system according to claim 2, wherein the support tube assembly comprises a pair of parallel extender tubes rigidly attached at one end to a pivot tube.
- [c4] A vehicular mirror system according to claim 3, wherein the pivot tube can be received in the channelway with the extender tubes extending outwardly from the base.

- [c5] A vehicular mirror system, comprising:
- a base adapted to be mounted to the vehicle, the base comprising a cradle extending outwardly therefrom;
 - a reflective element assembly for providing a rearward reflective view to an operator of the motor vehicle;
 - a support tube assembly attached to the reflective element assembly and supported in the cradle;
 - a motorized powerfold assembly mounted to at least one of the base and the reflective element assembly for selectively pivoting the support tube assembly alongside the vehicle or laterally outwardly from the vehicle;
 - at least one stop provided on at least one of the support tube assembly and the base, the stop defining a limit of a normal range of pivotal movement of the support tube assembly relative to the base; and
 - a retainer provided on the other of the support tube assembly and the base, wherein the at least one stop engages the retainer during pivotal movement within the normal range and disengages from the retainer during at least one of manual and overtravel movement of the support tube assembly relative to the base.
- [c6] A vehicular mirror system according to claim 5, wherein the at least one stop comprises a cylindrical body attached to an outer surface of the support tube assembly.
- [c7] A vehicular mirror system according to claim 6, wherein the at least one stop comprises two stops, the first stop corresponds to a first position of the reflective element assembly laterally outwardly from the vehicle, and the second stop corresponds to a second position of the reflective element assembly inwardly toward the vehicle.
- [c8] A vehicular mirror system according to claim 6, wherein the retainer comprises

a plate having a crimp therein for receiving the at least one stop.

- [c9] A vehicular mirror system according to claim 8, wherein the retainer is movably attached to the base adjacent the cradle.
- [c10] A vehicular mirror system according to claim 9, wherein the retainer is biased away from the cradle and toward the support tube assembly.
- [c11] A vehicular mirror system according to claim 10, wherein the retainer is biased by a spring.
- [c12] A vehicular mirror system according to claim 5, wherein the support of the support tube assembly by the cradle has increased strength and resistance to vibration while enabling the support tube assembly to pivot relative to the base.
- [c13] A vehicular mirror system according to claim 5, and further comprising a clamp for attachment to the cradle to form a cylindrical channelway.
- [c14] A vehicular mirror system according to claim 13, wherein the support tube assembly comprises a pair of parallel extender tubes rigidly attached at one end to a pivot tube, and the pivot tube can be received in the channelway with the extender tubes extending outwardly from the base.
- [c15] A vehicular mirror system, comprising:
 - a base adapted to be mounted to the vehicle, the base comprising a cradle extending outwardly therefrom;
 - a reflective element assembly for providing a rearward reflective view to an operator of the motor vehicle;
 - a support tube assembly attached to the reflective element assembly and supported in the cradle;
 - a motorized powerextend assembly mounted to at least one of the base and the reflective element assembly for selectively extending the reflective element

assembly laterally outwardly from the vehicle or inwardly toward the vehicle;
and

a bracket assembly formed from a first portion and a cooperatively juxtaposed second portion, wherein the first and second portions of the bracket assembly capture a portion of the support tube assembly and move with a driving force imparted by the power extend assembly.

- [c16] A vehicular mirror system according to claim 15, wherein the support tube assembly comprises a pivot tube attached to a pair of parallel extender tubes and the pivot tube is supported in the cradle.
- [c17] A vehicular mirror system according to claim 16, wherein the first portion of the bracket assembly defines a pair of semicylindrical channelways, the second portion of the bracket assembly defines a pair of semicylindrical channelways, and an assemblage comprising the first portion attached to the second portion defines a pair of cylindrical channelways for receipt of the extender tubes therethrough.
- [c18] A vehicular mirror system according to claim 17, wherein the first portion of the bracket assembly comprises an attachment tube, the second portion of the bracket assembly comprises a housing, and the attachment tube can be inserted into the housing to attach the first portion to the second portion.
- [c19] A vehicular mirror system according to claim 17, and further comprising a spring, wherein the spring urges the first portion of the bracket assembly toward the second portion of the bracket assembly to develop a frictional force between the bracket assembly and the extender tubes.
- [c20] A vehicular mirror system according to claim 15, wherein the support of the support tube assembly by the cradle has increased strength and resistance to vibration while enabling the support tube assembly to pivot relative to the base.

- [c21] A vehicular mirror system according to claim 15, and further comprising a clamp adapted for attachment to the cradle to form a cylindrical channelway.
- [c22] A vehicular mirror system according to claim 21, wherein the support tube assembly comprises a pair of parallel extender tubes rigidly attached at one end to a pivot tube, and the pivot tube can be received in the channelway with the extender tubes extending outwardly from the base.
- [c23] A vehicular mirror system according to claim 15, and further comprising a motorized powerfold assembly mounted to at least one of the base and the reflective element assembly for selectively pivoting the support tube assembly alongside the vehicle or laterally outwardly from the vehicle.
- [c24] A vehicular mirror system according to claim 15, and further comprising a motorized powerextend assembly mounted to at least one of the base and the reflective element assembly for selectively extending the reflective element assembly laterally outwardly from the vehicle or inwardly toward the vehicle.
- [c25] A vehicular mirror system, comprising:
a base adapted to be mounted to the vehicle, the base comprising a cradle extending outwardly therefrom;
a reflective element assembly for providing a rearward reflective view to an operator of the motor vehicle;
a support tube assembly comprising a pair of arms interconnected by a support element, wherein the pair of arms are attached to the reflective element assembly and the support element is received in the cradle; and
a retainer mounted to the base and extending across at least a portion of the cradle to retain the support element therein;
wherein the support of the support tube assembly by the cradle has increased strength and resistance to vibration while enabling the support tube assembly

to pivot relative to the base.

- [c26] A vehicular mirror system according to claim 25, and further comprising a clamp adapted for attachment to the cradle to form a cylindrical channelway.
- [c27] A vehicular mirror system according to claim 25, wherein the support tube assembly comprises a pair of parallel extender tubes rigidly attached at one end to a pivot tube, the pivot tube adapted to be received in the channelway with the extender tubes extending outwardly from the base;
- [c28] A vehicular mirror system according to claim 25, wherein the support of the support tube assembly by the cradle has increased strength and resistance to vibration while enabling the support tube assembly to pivot relative to the base.
- [c29] A vehicular mirror system according to claim 25, and further comprising a motorized powerfold assembly mounted to at least one of the base and the reflective element assembly for selectively pivoting the support tube assembly alongside the vehicle or laterally outwardly from the vehicle.
- [c30] A vehicular mirror system according to claim 25, and further comprising a motorized powerextend assembly mounted to at least one of the base and the reflective element assembly for selectively extending the reflective element assembly laterally outwardly from the vehicle or inwardly toward the vehicle
- [c31] A vehicular mirror system according to claim 25, wherein the at least one stop comprises a cylindrical body attached to an outer surface of the support tube assembly.
- [c32] A vehicular mirror system according to claim 31, and further comprising two stops attached to the support element, the first stop corresponds to a first position of the reflective element assembly laterally outwardly from the vehicle, and the second stop corresponds to a second position of the reflective element

assembly inwardly toward the vehicle.

- [c33] A vehicular mirror system according to claim 31, wherein the retainer comprises a plate having a crimp therein for receiving a stop.
- [c34] A vehicular mirror system according to claim 33, wherein the retainer is movably attached to the base adjacent the cradle.
- [c35] A vehicular mirror system according to claim 34, wherein the retainer is biased away from the cradle and toward the support tube assembly.
- [c36] A vehicular mirror system according to claim 35, wherein the retainer is biased by a spring.